

JAN 10 1995

1305



## State of New Jersey

Department of Environmental Protection

Christine Todd Whitman  
GovernorRobert C. Shinn, Jr.  
CommissionerCERTIFIED MAIL  
RETURN RECEIPT REQUESTED  
NO. 2161 557,243

DEC 21 1995

Mr. Nicholas Nahorniak, VP Engineering  
Lenox Incorporated  
Lenox Technical Center  
2511 Fire Road, Suite B-12  
Absecon, N.J. 08201

Dear Mr. Nahorniak:

Re: Lenox China Facility  
Memorandum of Agreement  
Galloway Township, Atlantic County

The MOA for Lenox China states that a Classification Exception Area (CEA) will be established pursuant to the completion of a Department approved three year lead and zinc study. The purpose of this study is to establish background concentrations for these 2 constituents. Since the Lenox facility is located in the Class I-PL area, the background concentrations established by this study will be the ground water standards for the site.

The language of the MOA appears to imply that a CEA for the site will be based solely on the exceedence of the lead and zinc standards. Lenox should be aware that a CEA must include all contaminants of concern that exceed the ground water standards. At Lenox, two trichloroethylene (TCE) plumes emanating from the site have been identified and delineated. The CEA established for the Lenox China site must include the TCE contamination found at the site.

Lenox China is responsible for providing to the Department 3 basic elements of the CEA. These are:

1. The CEA Boundaries. A written and mapped description of the area in which ground water standards are not and/or will not be met.
2. The CEA Contaminants. The CEA must identify and list each contaminant for which the CEA applies. This will include all contaminants of concern that exceed the applicable ground water standard.
3. The CEA Longevity. The CEA is not a permanent designation. The time period that the CEA will remain in effect must be estimated.

Guidance on establishing CEAs is available from the Department.

Pursuant to paragraph ten (10) of the MOA, the Department hereby notifies Lenox China that the Department's contact for all matters concerning this Memorandum of Agreement shall be the following:

New Jersey Department of Environmental Protection  
Division of Responsible Party Site Remediation

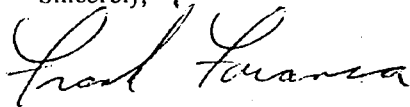
651295



Bureau of Federal Case Management  
401 East State Street - CN 028  
Trenton, New Jersey 08625-0028  
Attention: Frank Faranca, Project Manager

Should you have any questions, please contact me at (609) 984-4071.

Sincerely,

A handwritten signature in cursive script, appearing to read "Frank Faranca".

Frank Faranca, Project Manager  
Bureau of Federal Case Management

c: Andrew Park, USEPA, Region II  
Daryl Clark, NJDEPE/DPFSR/BGWPA

LENOX36.FFF

**LENOX**

CHINA • CRYSTAL

POMONA NEW JERSEY 08240

Rec'd  
4/16/97  
AP

April 10, 1997

13C

**CERTIFIED MAIL - RETURN RECEIPT REQUESTED #P543413120**

Mr. Andrew Park  
United States Environmental Protection Agency  
Air and Waste Management Division  
Hazardous Waste Facilities Branch  
Region II  
26 Federal Plaza  
New York, New York 10278

Re: HSWA Permit #NJD002325074  
Lenox China  
Tilton Road  
Pomona, NJ 08240

Dear Mr. Park,

This letter is being submitted to meet the following requirements of the revised HSWA permit, effective date March 25, 1997.

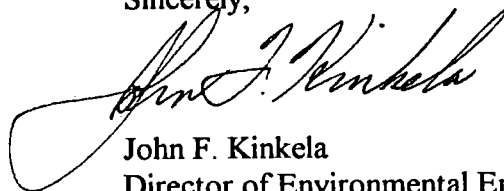
- Completion Report required within 90 days after Effective Date of Permit (EDP)
- Corrective Measures Report required within 180 days after EDP
- Certification of Deed Restriction required within 60 days after approval of Corrective Measures Report
- Demonstrate Financial Assurance within 60 days after EDP

Lenox previously submitted the Remedial Action Report prepared by its consultant, Eder Associates, to the New Jersey Department of Environmental Protection (NJDEP) on March 26, 1996. Copies were also submitted to the United States Environmental Protection Agency (USEPA) as required by the then current HSWA permit. This report fulfilled requirements for both the Completion and the Corrective Measures Reports. It also included the required Certification of Deed Restriction. Both the Hazardous and Solid Waste Amendments (HSWA) permit and the New Jersey Pollution Discharge Elimination System (NJPDES) permit allowed a single report covering these activities to be prepared and submitted to USEPA and NJDEP, jointly. NJDEP conditionally approved the report in a letter dated May 6, 1996, with a copy to USEPA, and included comments from USEPA. NJDEP and USEPA were notified that the required conditions had been met in a letter dated May 31, 1996.

As the remedial actions required under both the HSWA and NJPDES permits have been completed and approved, Financial Assurance that the work will be completed is redundant for the remediation work. The only remaining remedial activities are continued operation of the TCE Groundwater Remediation System and monitoring for the life of the permit. Based on over fifteen years of groundwater monitoring at this site and six years of operating the groundwater remediation system, Lenox does not believe that additional financial assurances are appropriate.

Should you have any questions concerning the above, please do not hesitate to contact me at (609) 965-8272.

Sincerely,



John F. Kinkela  
Director of Environmental Engineering

JFK/jfk

cc:

M. Chinn  
L. Fantin  
G. Berman

Frank Faranca  
New Jersey Department of Environmental Protection  
Division of Responsible Party Site Remediation  
Bureau of Federal Case Management  
401 East State Street CN 028  
Trenton, New Jersey 08625-0028

United States Environmental Protection Agency  
Office of Policy and Management  
Permits Administration Branch  
Region II  
26 Federal Plaza  
New York, New York 10278

Regional Administrator  
United States Environmental Protection Agency  
Region II  
26 Federal Plaza  
New York, New York 10278

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the right of

**CERTIFIED**

P 543 413 120

**MAIL**

RAB  
22

Mr. Andrew Park  
USEPA  
Air and Waste Management Division  
Hazardous Waste Facilities Branch  
Region II  
26 Federal Plaza  
New York, New York 10278

1027810004



Facility Name

EPA ID Number

Category

Date of doc.

Confidential (Non CBI) ☐

→ Page Number ☐

Non Confidential ☒

Copy ☐

Original ☒

FOIA Exempt ☐

Non FOIA Exempt ☐

Project Manager Signature



eder associates  
environmental scientists and engineers

OFFICES:  
Locust Valley, NY  
Madison, WI  
Ann Arbor, MI  
Augusta, GA  
Jacksonville, FL  
Trenton, NJ  
Tampa, FL

October 14, 1997  
File #530-3.5

Frank Faranca  
Case Manager  
New Jersey Department of Environmental Protection  
Division of Responsible Party Site Remediation  
Bureau of Federal Case Management  
401 East State Street, 5th Floor  
CN 028  
Trenton, New Jersey 08625-0028

Re: Lenox China, Pomona, New Jersey  
Statistical Monitoring Program and Classification Exception Area (CEA)

Dear Frank:

This letter summarizes the groundwater statistical monitoring program conducted between August 1994 and September 1997 at Lenox China (Lenox), Pomona, New Jersey and proposes a Classification Exception Area (as shown on Figure 1) for groundwater in the shallow aquifer. The groundwater statistical monitoring program was conducted in accordance with the New Jersey Department of Environmental Protection (NJDEP) August 13, 1993 approval letter.

#### Background

The statistical monitoring program was intended to determine existing background concentrations of lead and zinc with sufficient confidence to establish CEA boundaries encompassing the Lenox facility and adjacent properties. The program was accomplished 1) by developing a statistically reliable monitoring database to establish existing background concentrations of lead and zinc in groundwater at the Lenox site, and 2) by subjecting the database to the appropriate statistical analysis to establish existing background concentrations, taking into account the areal, temporal (seasonal and short term), sampling and analytical variabilities inherent in any groundwater monitoring program.

#### Groundwater Monitoring

The natural variability in the data includes the complex relationship of short-term components (rainstorms) superimposed on spatial and long-term (seasonal) variations. Additionally, the data is influenced to some degree by the uncertainty in sampling and analytical procedures.

Continued...

Frank Faranca, Case Manager  
New Jersey Department of Environmental Protection  
October 14, 1997

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Groundwater samples were collected from nine monitoring wells on and adjacent to the Lenox facility. To address possible spatial variability in background groundwater quality, the initial background concentrations were determined based on data from three upgradient monitoring wells: MW-1 on the Lenox western property boundary and MW-3F and MW-6F on the Blue Heron golf course west of the Lenox facility across Tilton Road. Downgradient wells MW-73 and MW-74, on the eastern property boundary; MW-12S and MW-13 on the undeveloped property east of the Lenox facility across Aloe Street; and MW-75 and MW-79A on the White Horse Pike right-of-way were also monitored.

Groundwater sampling was conducted in accordance with the NJDEP-approved Lenox China Supplemental Groundwater Sampling and Analysis Plan (April 1996). Filtered and unfiltered samples were collected from each monitoring well and analyzed for lead and zinc. Groundwater samples were collected monthly between August 1994 and September 1995 and quarterly between September 1995 and September 1997. Four replicate samples were collected from each well to address analytical variability.

#### Statistical Analysis Procedure

The statistical analysis procedures were conducted in accordance with the requirements and recommendations specified in USEPA 53 CFR 39720 (October 11, 1988). These procedures, which are used to determine whether there is a significant difference between upgradient and downgradient monitoring data, are termed Analysis of Variance (ANOVA) and they are defined in the Interim Final Guidance, USEPA, 1989, (530-SW-89-026).

ANOVAs may be parametric or nonparametric. Parametric ANOVA procedures assume that the raw or logarithmically transformed data follow normal distribution. Parametric ANOVA procedures should not be used if the data base contains more than 15 percent of non-detects. Nonparametric ANOVA techniques can be used when the data does not follow normal distribution and/or contains a significant amount of non-detects.

The groundwater monitoring data was analyzed using the nonparametric ANOVA Kruskal-Wallis technique because the percentage of non-detects for individual monitoring wells varied from 0 to 99 percent. The Groundwater Tracking System with Statistical analysis software package (GRIT/STAT v. 4.2) developed by the USEPA (EPA/625/11-91/002) was used in the statistical calculation.

Continued...



Frank Faranca, Case Manager  
New Jersey Department of Environmental Protection  
October 14, 1997

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### Statistical Analysis Assumptions

Analytical data for each parameter at each downgradient monitoring well were compared to the analytical data for each parameter from the upgradient monitoring wells. Non-detects were assumed to be equal to one-half of the laboratory minimum detection limit. The 5 percent Type 1 error level of significance was used for all multiple well comparisons in accordance with N.J.A.C. 7:14A-6.15h(8).

### Findings

The statistical monitoring results are summarized in Tables 1 through 9. GRIT/STAT data are summarized in Appendix A. The statistical analysis findings are summarized below:

#### Unfiltered Samples

- Lead was detected in unfiltered samples from upgradient wells MW-1 (7.4  $\mu\text{g/l}$ ), MW-3F (4.1  $\mu\text{g/l}$ ), and MW-6F (4.3  $\mu\text{g/l}$ ) at mean concentrations less than the 10  $\mu\text{g/l}$  groundwater protection limit.
- Zinc was detected in unfiltered samples from upgradient wells MW-1 (36.7  $\mu\text{g/l}$ ) and MW-3F (33.4  $\mu\text{g/l}$ ) at mean concentrations greater than the 30  $\mu\text{g/l}$  groundwater protection limit.
- Lead was detected in unfiltered samples from downgradient wells MW-12S (1.7  $\mu\text{g/l}$ ), MW-13 (1.7  $\mu\text{g/l}$ ), MW-75 (4.8  $\mu\text{g/l}$ ), and MW-79A (1.8  $\mu\text{g/l}$ ) at concentrations below the 10  $\mu\text{g/l}$  groundwater protection limit. There is no significant statistical difference between the mean concentration of lead in these downgradient wells and in upgradient well MW-1 (7.4  $\mu\text{g/l}$ ).
- Zinc was detected in unfiltered samples from downgradient wells MW-12S (26.2  $\mu\text{g/l}$ ), MW-13 (25.5  $\mu\text{g/l}$ ), MW-75 (24.9  $\mu\text{g/l}$ ), and MW-79A (23.4  $\mu\text{g/l}$ ) at concentrations below the 30  $\mu\text{g/l}$  groundwater protection limit. The mean concentration of zinc in these downgradient wells is less than in upgradient wells MW-1 (36.7  $\mu\text{g/l}$ ) and MW-3F (33.4  $\mu\text{g/l}$ ).
- Lead and zinc were detected in unfiltered samples from downgradient wells MW-73 and MW-74 at mean concentrations greater than the upgradient monitoring wells.

Continued...

Frank Faranca, Case Manager  
New Jersey Department of Environmental Protection  
October 14, 1997

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These results were expected because MW-73 and MW-74 are located immediately downgradient of SWMU #2 and the Area of Concern.

#### Filtered Samples

- Lead was detected in filtered samples from upgradient wells MW-1 (1.7  $\mu\text{g/l}$ ), MW-3F (2.3  $\mu\text{g/l}$ ), and MW-6F (1.8  $\mu\text{g/l}$ ) at mean concentrations less than the 10  $\mu\text{g/l}$  groundwater protection limit.
- Zinc was detected in filtered samples from upgradient well MW-3F (38.5  $\mu\text{g/l}$ ) at a mean concentration greater than the 30  $\mu\text{g/l}$  groundwater protection limit.
- Lead was detected in filtered samples from downgradient wells MW-12S (1.5  $\mu\text{g/l}$ ), MW-13 (1.6  $\mu\text{g/l}$ ), MW-75 (1.6  $\mu\text{g/l}$ ), and MW-79A (1.5  $\mu\text{g/l}$ ) at mean concentrations below the 10  $\mu\text{g/l}$  groundwater protection limit. There is no significant statistical difference between the mean concentration of lead in these downgradient wells and in upgradient wells MW-1 (1.7  $\mu\text{g/l}$ ), MW-3F (2.3  $\mu\text{g/l}$ ), and MW-6F (1.8  $\mu\text{g/l}$ ).
- Zinc was detected in filtered samples from downgradient wells MW-12S (21.4  $\mu\text{g/l}$ ), MW-13 (26.1  $\mu\text{g/l}$ ), MW-75 (18.0  $\mu\text{g/l}$ ), and MW-79A (24.0  $\mu\text{g/l}$ ) at mean concentrations less than the 30  $\mu\text{g/l}$  groundwater protection limit. The mean concentration of zinc in these downgradient wells is less than in upgradient wells MW-1 (29.7  $\mu\text{g/l}$ ) and MW-3F (38.6  $\mu\text{g/l}$ ).
- Lead and zinc were detected in filtered samples from downgradient wells MW-73 and MW-74 at mean concentrations greater than the upgradient monitoring wells. These results were expected because MW-73 and MW-74 are located immediately downgradient of SWMU #2 and the Area of Concern.

#### Classification Exception Area (CEA)

Lenox has implemented remedial actions/engineering controls (such as source removal and capping) to control lead and zinc migration from source areas. The CEA is an administrative control which establishes an area of the Lenox site within which concentrations of lead and zinc are statistically greater than those detected in upgradient monitoring wells, and establishes a mechanism to evaluate the effectiveness of the remedial actions/engineering controls through groundwater monitoring.

Continued...

eder associates

Frank Faranca, Case Manager  
New Jersey Department of Environmental Protection  
October 14, 1997

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The statistical analysis shows that there is no significant difference in lead and zinc concentrations between upgradient monitoring wells and downgradient monitoring wells MW-12S, MW-13, MW-75 and MW-79A. The statistical analysis also shows that lead and zinc were detected in downgradient wells MW-73 and MW-74 at concentrations significantly greater than those detected in upgradient monitoring wells. The proposed CEA boundaries were constructed based on these conclusions.

The CEA boundary will extend from upgradient well MW-1 to downgradient well MW-12S on the north side of the property, from MW-12S to MW-81 on the east side of the property, and from MW-81 to MW-1 on the south side of the property as shown in Figure 1. The CEA boundary will encompass monitoring wells MW-73 and MW-74, and the monitoring wells along Atlantic Avenue within the Atlantic Avenue right-of-way. The CEA vertical boundary will be the shallow zone of the Cohansey Aquifer.

The groundwater monitoring results show that zinc was detected in upgradient monitoring wells (MW-1 and MW-3F) at mean concentrations greater than the 30  $\mu\text{g/l}$  groundwater standard. Monitoring wells along White Horse Pike (MW-75 and MW-79A) will be used as downgradient sentinel wells to verify CEA compliance. CEA compliance will be determined by a statistical comparison of the upgradient well and downgradient sentinel well groundwater monitoring results. An addendum to the Supplemental Groundwater Sampling and Analysis Plan describing the CEA compliance sampling frequency will be submitted to the NJDEP by November 1, 1997.

Lead and zinc concentrations in the area which is within the CEA boundary and beyond the Lenox property are less than the 15  $\mu\text{g/l}$  New Jersey Primary Drinking Water Standard for lead and the 5 milligram per liter (mg/l) New Jersey Secondary Drinking Water Standard for zinc. Lenox believes that the CEA beyond the Lenox property line is not a Water Use Area because there are no domestic, irrigation, industrial, or public wells and future use of groundwater within this area is improbable due to the availability of municipally supplied water along the White Horse Pike and Aloe Street. Therefore, Lenox believes that notification of property owners within the CEA boundary is not required.

Please call me if you have any questions.

Very truly yours,  
EDER ASSOCIATES

Mark Foley  
Project Manager



eder associates  
environmental scientists and engineers

Locust Valley, NY  
Madison, WI  
Ann Arbor, MI  
Augusta, GA  
Jacksonville, FL  
Trenton, NJ  
Tampa, FL

DATE: 11/24TIME: 1510JOB#: 530-3.5FAX#: 212-637-4437TO: ANDREW PARKFROM: MARK FOLEYSUBJECT: LENDOKCOMMENTS: - TEXT - WE'LL SEND FULL REPORTVIA MAILNumber of pages to follow: 5

If you receive this communication in error, or if you encountered any problems with transmission, please telephone us at (609) 695-1050.

This facsimile is privileged and confidential and is intended only for the individual or entity named above and others who have been specifically authorized to receive it. If you are not the intended recipient, you are hereby notified that any dissemination, distribution or copying of this communication is strictly prohibited.

Original will follow: ☐ No ☐ by Regular Mail ☐ by Fed. Express

1305

From: Frank Faranca <FFARANCA@dep.state.nj.us>  
To: R2NYC06.R2DEPDIV(PARK-ANDY)  
Date: 11/24/97 11:11am  
Subject: Lenox Statistical Analysis

\*\* High Priority \*\*  
\*\* Reply Requested When Convenient \*\*

Andy,  
Attached please find a DRAFT copy of a Lenox correspondence  
regarding their 3 year  
statistical analysis. Please let me know if you have any  
comments. Thanks  
Frank

**CERTIFIED MAIL  
RETURN RECEIPT REQUESTED  
NO. \_\_\_\_\_**

Mr. Louis A. Fantin, VP  
Lenox Incorporated  
100 Lenox Drive  
Lawrenceville, N.J. 08648

Dear Mr. Fantin:

Re: **Lenox China Facility  
Statistical Monitoring Program and Classification Exception Area (CEA)  
Galloway Township, Atlantic County**

The New Jersey Department of Environmental Protection (Department) and the U.S. Environmental Protection Agency (EPA) received the above referenced report dated October 14, 1997 submitted by Eder Associates on behalf of Lenox Incorporated (Lenox). During the period between August 1994 and September 1997, Lenox conducted a ground water statistical monitoring program in accordance with the Department's August 13, 1993 approval letter. The monitoring program was implemented to determine background concentrations of lead and zinc in ground water at the Lenox facility and to determine whether there is a significant difference in lead and zinc concentrations between upgradient, background wells and downgradient monitoring wells. The nonparametric ANOVA Kruscal-Wallis test was used analyze the ground water data. CEA boundaries for the site were established based on the results of the monitoring program. Comments on this document are offered below.

The use of the nonparametric ANOVA Kruscal-Wallis test is acceptable and appropriate for analyzing the ground water data.

The report contains the results for both filtered and unfiltered samples. Lenox should be aware that the Department will only accept data results from unfiltered samples.

Since the Lenox facility is located in a Class I(PL) area, the Department will establish the ground water quality criteria (GWQC) for lead and zinc based on the background study conducted by Lenox. This will be the subject of a separate correspondence to be issued in the near future.

Results of the statistical analysis show that there is significant evidence of contamination in two of the downgradient wells sampled during the study, indicating that Lenox has contributed to lead and zinc contamination in ground water.

The CEA boundary proposed by Lenox specifically addresses lead and zinc contamination. Lenox should be aware that a CEA must include all contaminants of concern at the site. For Lenox, this will include TCE and any daughter products detected above the applicable GWQC. The written CEA proposal and the mapped CEA boundary proposed for the site must be revised to incorporate the TCE plumes migrating from the site.

Lenox should refer to the Department's CEA Final Guidance Document and N.J.A.C. 7:26E-6.2(a)17 of the Technical Requirements for Site Remediation for information and guidance on submitting a CEA proposal.

Lenox requests that the offsite area which encompass the proposed CEA boundary be considered a non-ground water use area. This based on the lack of any ground water receptor wells within the proposed CEA boundary and the availability of municipally supplied water to downgradient property owners.

Before the Department can make a decision on the status of the ground water (i.e. usage or non-usage area), the following information must be provided by Lenox.

Determine if the proposed CEA boundary area contains any undeveloped land that could be developed or is in the process of being developed.

If the CEA boundary area contains land that can be developed, Lenox must check with the local government (i.e. Galloway Township) to determine whether or not it is mandatory for property owners to obtain municipally supplied water.

When the CEA proposal for Lenox China is approved, the Department will either establish the CEA as part of Lenox's NJPDES-DGW permit in accordance with N.J.A.C. 7:9-6.6(c) of the Ground Water Quality Standards or as part of the existing MOA in accordance with N.J.A.C. 7:9-6.6(d).

Should you have any questions, please contact me at (609) 984-4071.

Sincerely,

Frank Faranca, Project Manager  
Bureau of Federal Case Management

c: Andrew Park, USEPA, Region II  
Daryl Clark, NJDEP/DPFSR/BGWPA  
Todd DeJesus, Pinelands Commission



State of New Jersey

Christine Todd Whitman  
Governor

Department of Environmental Protection

Robert C. Shinn, Jr.  
Commissioner

**CERTIFIED MAIL**  
**RETURN RECEIPT REQUESTED**  
**NO 2451 673 439**

**DEC 16 1997**

Mr. Louis A. Fantin, VP  
Lenox Incorporated  
100 Lenox Drive  
Lawrenceville, NJ 08648

Dear Mr. Fantin:

Re: **Lenox China Facility**  
**Statistical Monitoring Program and Classification Exception Area (CEA)**  
**Galloway Township, Atlantic County**

The New Jersey Department of Environmental Protection (Department) and the U.S. Environmental Protection Agency (EPA) received the above referenced report dated October 14, 1997 submitted by Eder Associates on behalf of Lenox Incorporated (Lenox). During the period between August 1994 and September 1997, Lenox conducted a ground water statistical monitoring program in accordance with the Department's August 13, 1993 approval letter.

The monitoring program was implemented to determine background concentrations of lead and zinc in ground water at the Lenox facility and to determine whether there is a significant difference in lead and zinc concentrations between upgradient, background wells and downgradient monitoring wells. The nonparametric ANOVA Kruskal-Wallis test was used to analyze the ground water data. CEA boundaries for the site were established based on the results of the monitoring program. Comments on this document are offered below:

1. The use of the nonparametric ANOVA Kruskal-Wallis test is acceptable and appropriate for analyzing the ground water data.
2. The report contains the results for both filtered and unfiltered samples. Lenox should be aware that the Department will only accept data results from unfiltered samples.
3. Since the Lenox facility is located in a Class I (PL) area, the ground water quality criteria (GWQC) for lead and zinc will be based on the background study conducted by Lenox. The GWQC for lead and zinc at the site can be determined by the arithmetic mean for each parameter based on the ground water concentrations taken over the 3-year period. The basis for this method is from the NJPDES regulations. Specifically, refer to N.J.A.C. 7:14A-10.15 and N.J.A.C. 7:14A-7.9(d) 5ii.
4. Results of the statistical analysis show that there is evidence of an impact in two of the downgradient wells sampled during the study, indicating that Lenox has contributed to elevated lead and zinc levels in ground water.
5. Lenox has implemented remedial actions/engineering controls (such as source removal and capping) to control lead and zinc migration from the source areas. If Lenox is proposing "natural attenuation" as the ground water remedy for lead and zinc, this must be discussed in the text and supporting documentation provided in accordance with the Department's CEA Final Guidance Document and N.J.A.C. 7:26E-6.3(d) of the Technical Requirements for Site Remediation.



6. The CEA boundary proposed by Lenox specifically addresses lead and zinc contamination. Lenox should be aware that a CEA must include TCE at the site. For Lenox, this will include TCE and any daughter products detected above the applicable GWQC. It is our understanding that Lenox intends to have the mapped CEA boundary prepared for lead and zinc as the boundary for TCE. Therefore, the Department requests that Lenox provide the supporting documentation.

Lenox should refer to the Department's CEA Final Guidance Document and N.J.A.C. 7:26E-6.2(a)17 of the Technical Requirements for Site Remediation for information and guidance on submitting a CEA proposal.

7. Lenox requests that the offsite area, which encompasses the proposed CEA boundary, be considered non-ground water use area. This is based on the lack of any ground water receptor wells within the proposed CEA boundary and the availability of municipally supplied water to downgradient property owners.

Before the Department can make a decision on the status of the ground water (i.e., usage or non-usage area), Lenox must provide the following information.

- a. Determine if the proposed CEA boundary area contains any undeveloped land that could be developed or is in the process of being developed.
  - b. If the CEA boundary area contains land that can be developed, Lenox must check with the local government (i.e., Galloway Township) to determine whether or not it is mandatory for property owners to obtain municipally supplied water.
8. The Pinelands Commission has also reviewed the above referenced report. The Commission agrees that Lenox must discuss any proposed natural attenuation remedial alternative for lead and zinc. It must be demonstrated that natural attenuation will result in achieving the appropriate ground water quality standards for all contaminants of concern or, that the Department and the Pinelands Commission have determined that contaminant levels have decreased to levels that will ensure compliance with these standards. Additionally, an application to the Commission will be necessary for any proposed active remedial alternative. Copies of all subsequent reports and letters of correspondence must be submitted to the Pinelands Commission office.
9. The parcels surrounding the Lenox facility, which will be subject to the proposed CEA, are zoned as Regional Growth and Rural Development Areas. Many types of residential and commercial uses are permitted in these zoning districts. This should be considered before any restrictions are placed on these parcels.

Should you have any questions, please contact me at (609) 984-4071.

Sincerely,



Frank Faranca, Project Manager  
Bureau of Federal Case Management

C: Andrew Park, USEPA, Region II  
Daryl Clark, NJDEP/DPFSR/BGWPA  
Todd DeJesus, Pinelands Commission

6/3/98

R O C w/ Frank Faramica

He said that Cenox still needs to do more on statistical analysis.

Upon completion of the statistical analysis, it will be more clearer as to whether they need to do natural attenuation for lead & zinc in GW, with CEA.

Andy Park

**From:** ANDY PARK  
**To:** btornick,rtpmainhub.internet:("ffaranca@dep.state....  
**Date:** 1/6/98 10:36am  
**Subject:** Lenox China

Record of 12/31/97 Discussion with Barry Tornick

Barry said that, in order for a natural attenuation remedy to be acceptable for contaminated groundwater, a proper groundwater monitoring program including sentinel wells should be required and implemented. He asked me how such requirements would be imposed for a natural attenuation remedy expected for Lenox, or whether the NJPDES modification, envisioned early this year, would require it. I said that groundwater is currently being monitored for the RCRA-regulated units under the NJPDES permit and its modification appears to be a proper mechanism to include the requirements, but whether it would really be the case would be unknown until NJDEP starts preparing the modification based on Lenox's proposal.

Barry said that it can be flexible as far as an issue of whether the NJPDES permit modification should include a wording "natural remediation" is concerned. I pointed out that the issue of whether to include a wording "natural remediation" in the NJPDES MOD seems similar to the issue of whether to include a wording "RCRA post-closure permit" in the NJDPES permit for DuPont Deepwater.

Barry and I agreed that the NJPDES permit, equivalent to the RCRA post-closure permit for the basins (RCRA surface impoundments), must adopt a natural attenuation remedy to be proposed by Lenox and approved by NJDEP (and EPA).

Record of 12/31/97 Conversation among Barry Tornick, Frank Faranca, and Andy Park

Frank agreed that the NJPDES permit and its modification would adopt a natural attenuation remedy to be proposed by Lenox and approved by NJDEP (and EPA).

Barry said that he (and maybe I) will talk with Ray on this.

Andy Park

**CC:** rbasso

12/31/97

\* Discussion on Lenox w/ Barry Tornick

I discussed ~~Lenox~~ with Barry on Lenox.

\* Telephone Call (Conference) with Frank Varanca

He said that a GDEP permit would address the Natural Attenuation Remediation, which is a change from what he said previously.

\* Barry said that he (and maybe I) will talk with Ray Basso on this.

Andy Paul

**From:** BARRY TORNICK  
**To:** PARK-ANDY  
**Date:** 12/31/97 7:59am  
**Subject:** Lenox China -Reply -Reply

Come over and let's discuss this.

**From:** RAY BASSO  
**To:** PARK-ANDY  
**Date:** 12/30/97 1:38pm  
**Subject:** Lenox China -Reply -Reply

that doesn't sound legit to me. What do you think.

**CC:** btornick

**From:** ANDY PARK  
**To:** R2NYC06.R2DEPDIV(TORNICK-BARRY), BASSO-RAY  
**Date:** 12/30/97 12:52pm  
**Subject:** Lenox China -Reply

I spoke to Frank Faranca, NJDEP.

In response to NJDEP's Dec. 16, 1997 comments on the CEA report, Lenox will submit in January 1998 a formal proposal of remedial measure for the CEA of lead and zinc - expectedly Natural Attenuation.

Upon determining that the proposal is acceptable, NJDEP will go through a major modification of the NJPDES/DGW permit to adopt the background concentrations of lead and zinc as the groundwater protection standards. However, the remediation itself would not be part of the NJPDES/DGW permit but rather is to be approved through NJDEP correspondence.

Andy Park

**From:** RAY BASSO  
**To:** btornick,apark  
**Date:** 12/30/97 9:36am  
**Subject:** Lenox China

When you guys get a chance let me know whats up with Lenox Re: our position vs DEPs.



**From:** Frank Faranca <FFARANCA@dep.state.nj.us>  
**To:** R2NYC06.R2DEPDIV(PARK-ANDY)  
**Date:** 12/15/97 12:50pm  
**Subject:** Andy, please find below the DRAFT lenox letter.

**\*\* High Priority \*\***

Andy, please find below the DRAFT lenox letter.  
Frank

CERTIFIED MAIL  
RETURN RECEIPT REQUESTED  
NO. \_\_\_\_\_

Mr. Louis A. Fantin, VP  
Lenox Incorporated  
100 Lenox Drive  
Lawrenceville, NJ 08648

Dear Mr. Fantin:

Re: Lenox China Facility  
Statistical Monitoring Program and Classification Exception Area (CEA)  
Galloway Township, Atlantic County

The New Jersey Department of Environmental Protection (Department) and the U.S. Environmental Protection Agency (EPA) received the above referenced report dated October 14, 1997 submitted by Eder Associates on behalf of Lenox Incorporated (Lenox). During the period between August 1994 and September 1997, Lenox conducted a ground water statistical monitoring program in accordance with the Department's August 13, 1993 approval letter. The monitoring program was implemented to determine background concentrations of lead and zinc in ground water at the Lenox facility and to determine whether there is a significant difference in lead and zinc concentrations between upgradient, background wells and downgradient monitoring wells. The nonparametric ANOVA Kruskal-Wallis test was used to analyze the ground water data. CEA boundaries for the site were established based on the results of the monitoring program. Comments on this document are offered below:

1. The use of the nonparametric ANOVA Kruskal-Wallis test is acceptable and appropriate for analyzing the ground water data.
2. The report contains the results for both filtered and unfiltered samples. Lenox should be aware that the Department will only accept data results from unfiltered samples.
3. Since the Lenox facility is located in a Class I (PL) area, the ground water quality criteria (GWQC) for lead and zinc will be based on the background study conducted by Lenox. The GWQC for lead and zinc at the site can be determined by the arithmetic mean for each parameter based on the ground water concentrations taken over the 3-year period. The basis for this method is from the NJPDES regulations. Specifically, refer to N.J.A.C. 7:14A-10.15 and N.J.A.C. 7:14A-7.9(d) 5ii.
4. Results of the statistical analysis show that there is evidence of an impact in two of the downgradient wells sampled during the study, indicating that Lenox has contributed to elevated lead and zinc levels in ground water.
5. Lenox has implemented remedial actions/engineering controls (such as source removal and capping) to control lead and zinc migration from the source areas. If Lenox is proposing "natural attenuation" as the ground water remedy for lead and zinc, this must be discussed in the text and supporting documentation provided in accordance with the Department's CEA Final Guidance Document and N.J.A.C. 7:26E-6.3(d) of the Technical Requirements for

## Site Remediation.

6. The CEA boundary proposed by Lenox specifically addresses lead and zinc contamination. Lenox should be aware that a CEA must include TCE at the site. For Lenox, this will include TCE and any daughter products detected above the applicable GWQC. It is our understanding that Lenox intends to have the mapped CEA boundary prepared for lead and zinc as the boundary for TCE. Therefore, the Department requests that Lenox provide the supporting documentation.

Lenox should refer to the Department's CEA Final Guidance Document and N.J.A.C. 7:26E-6.2(a)17 of the Technical Requirements for Site Remediation for information and guidance on submitting a CEA proposal.

7. Lenox requests that the offsite area, which encompasses the proposed CEA boundary, be considered non-ground water use area. This is based on the lack of any ground water receptor wells within the proposed CEA boundary and the availability of municipally supplied water to downgradient property owners.

Before the Department can make a decision on the status of the ground water (i.e., usage or non-usage area), Lenox must provide the following information.

a. Determine if the proposed CEA boundary area contains any undeveloped land that could be developed or is in the process of being developed.

b. If the CEA boundary area contains land that can be developed, Lenox must check with the local government (i.e., Galloway Township) to determine whether or not it is mandatory for property owners to obtain municipally supplied water.

8. The Pinelands Commission has also reviewed the above referenced report. The Commission agrees that Lenox must discuss any proposed natural attenuation remedial alternative for lead and zinc. It must be demonstrated that natural attenuation will result in achieving the appropriate ground water quality standards for all contaminants of concern or, that the Department and the Pinelands Commission have determined that contaminant levels have decreased to levels that will ensure compliance with these standards. Additionally, an application to the Commission will be necessary for any proposed active remedial alternative. Copies of all subsequent reports and letters of correspondence must be submitted to the Pinelands Commission office.

9. The parcels surrounding the Lenox facility, which will be subject to the proposed CEA, are zoned as Regional Growth and Rural Development Areas. Many types of residential and commercial uses are permitted in these zoning districts. This should be considered before any restrictions are placed on these parcels.

Should you have any questions, please contact me at (609) 984-4071.

Sincerely,

Frank Faranca, Project Manager  
Bureau of Federal Case Management

C: Andrew Park, USEPA, Region II  
Daryl Clark, NJDEP/DPFSR/BGWPA

12/15/97

## Questions

Background (GWQC) has already been determined, and they are proposing the sentinel wells for monitoring of CBA for the determination of whether CBA is in compliance with the GWQC.

Is not it the time to prepare the modification of NTPPS permit?

---

Frank mentioned Section IV, pg 6, condition 3.

**From:** Frank Faranca <FFARANCA@dep.state.nj.us>  
**To:** R2NYC06.R2DEPDIV(PARK-ANDY)  
**Date:** 12/15/97 12:17pm  
**Subject:** Lenox Draft Letter

**\*\* High Priority \*\***

Andy,  
Attached please find a copy of the revised DRAFT lenox letter. This letter will not be issued until after the NJDEP/EPA quarterly meeting scheduled for tomorrow (12-16). The letter is in Microsoft Word (97) format. Please call if you have any concerns. Thanks  
Frank

+pUek +pRJCERTIFIED MAIL  
RETURN RECEIPT REQUESTED  
NO. \_\_\_\_\_

Mr. Louis A. Fantin, VP  
Lenox Incorporated  
100 Lenox Drive  
Lawrenceville, NJ 08648

Dear Mr. Fantin:

Re: Lenox China Facility  
Statistical Monitoring Program and Classification Exception Area (CEA)  
Galloway Township, Atlantic County

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seq level0 \h \r0 seq level1 \h \r0 seq level2 \h \r0 seq level3 \h \r0 seq level4 \h \r0 seq level5 \h \r0 seq level6 \h \r0 seq level7 \h \r0 seq level0 \\*arabic1. The use of the nonparametric ANOVA Kruskal-Wallis test is acceptable and appropriate for analyzing the ground water data.

seq level0 \\*arabic2. The report contains the results for both filtered and unfiltered samples. Lenox should be aware that the Department will only accept data results from unfiltered samples.

seq level0 \\*arabic3. Since the Lenox facility is located in a Class I (PL) area, the ground water quality criteria (GWQC) for lead and zinc will be based on the background study conducted by Lenox. The GWQC for lead and zinc at the site can be determined by the arithmetic mean for each parameter based on the ground water concentrations taken over the 3 year period. The basis for this method is from the NJPDES regulations. Specifically, refer to N.J.A.C. 7:14A10.15 and N.J.A.C. 7:14A7.9(d) 5ii.

seq level0 \\*arabic4. Results of the statistical analysis show that there is evidence of an impact in two of the downgradient wells sampled during the study, indicating that Lenox has contributed to elevated lead and zinc levels in ground water.

seq level0 \\*arabic5. Lenox has implemented remedial actions/engineering controls (such as source removal and capping) to control lead and zinc migration from the source areas. If Lenox is proposing "natural attenuation" as the ground water remedy for lead and zinc, this must be discussed in the text and supporting documentation provided in accordance with the Department's CEA Final Guidance Document and N.J.A.C. 7:26E-6.3(d) of the Technical Requirements for Site Remediation.

seq level0 \\*arabic6. The CEA boundary proposed by Lenox specifically addresses lead and zinc contamination. Lenox should be aware that a CEA must include TCE at the site. For Lenox, this will include TCE and any daughter products detected above the applicable GWQC. It is our understanding that Lenox intends to have the mapped CEA boundary prepared for lead and zinc as the boundary for TCE. Therefore, the Department requests that Lenox provide the supporting documentation.

Lenox should refer to the Department's CEA Final Guidance Document and N.J.A.C. 7:26E-6.2(a)17 of the Technical Requirements for Site Remediation for information and guidance on submitting a CEA proposal.

seq level0 \\*arabic7. Lenox requests that the offsite area, which encompasses the proposed CEA boundary, be considered non-ground water use area. This is based on the lack of any ground water receptor wells within the proposed CEA boundary and the availability of municipally supplied water to downgradient property owners.

Before the Department can make a decision on the status of the ground water (i.e., usage or non-usage area), Lenox must provide the following information.

seq level1 \\*alphabetic a. Determine if the proposed CEA boundary area contains any undeveloped land that could be developed or is in the process of being developed.

seq level1 \\*alphabetic b. If the CEA boundary area contains land that can be developed, Lenox must check with the local government (i.e., Galloway Township) to determine whether or not it is mandatory for property owners to obtain municipally supplied water.

The Pinelands Commission has also reviewed the above referenced report. The Commission agrees that Lenox must discuss any proposed natural attenuation remedial alternative for lead and zinc. It must be demonstrated that natural attenuation will result in achieving the appropriate ground water quality standards for all contaminants of concern or, that the Department and the Pinelands Commission have determined that contaminant levels have decreased to levels that will ensure compliance with these standards. Additionally, an application to the Commission will be necessary for any proposed active remedial alternative. Copies of all subsequent reports and letters of correspondence must be submitted to the Pinelands Commission office.

The parcels surrounding the Lenox facility, which will be subject to the proposed CEA, are zoned as Regional Growth and Rural Development Areas. Many types of residential and commercial uses are permitted in these zoning districts. This should be considered before any restrictions are placed on these parcels.

Should you have any questions, please contact me at (609) 984-4071.

Sincerely,

Frank Faranca, Project Manager  
Bureau of Federal Case Management

C: Andrew Park, USEPA, Region II  
Daryl Clark, NJDEP/DPFSR/BGWPA  
Todd DeJesus, Pinelands Commission

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**From:** BARRY TORNICK  
**To:** PARK-ANDY  
**Date:** 12/11/97 1:55pm  
**Subject:** Lenox China-CEA -Reply -Reply -Reply -Reply

That is exactly right and exactly the point we need to make at the meeting.

>>> ANDY PARK 12/11/97 11:56am >>>

Hi,

How easy it is to blame the lowly staff. Attached are some background information that may help you. If lead and zinc is coming from the RCRA-regulated units, the concentrations in groundwater is higher than the standards, and NJDEP is proposing a natural attenuation remediation, the NJDEP permit should reflect the remediation.  
Andy Park

>>> Tracy Grabiak <TGRABIAK@dep.state.nj.us> 12/11/97 10:35am >>>

Liz Fernandez suggested to me what the main misunderstanding may be, which my previous email touched on but may not have stated clearly enough. . This misunderstanding is revealed best in Andy's part of the email where he makes the statement "the CEA represents a final remedy for ground water" This is a common misunderstanding. To put it simply a CEA does not = a remedy. TG

>>> BARRY TORNICK

<TORNICK.BARRY@epamail.epa.gov> 12/10/97 09:05am

>>>

The issue seems to be what will make the CEA legally binding from both federal and state perspectives. You are correct that the post-closure permit is more appropriate from the EPA perspective. NJDEP was authorized for the base RCRA program based on imposing post-closure requirements through their NJPDES permits. How they do this (or don't do this) is now an issue concerning whether we are going to re-authorize them.

We have noted inconsistencies in how NJDEP handles closures and post-closures. While I am sure that Tracy is correct in that imposing the CEA through an MOA is acceptable to the NJDEP program, our EPA lawyers would say that not only is an MOA not the instrument through which they were authorized to implement the federal post-closure program, but that MOAs do not even legally impose anything, because they are voluntary documents that facilities can stop implementing if they want.

The main problems are the programmatic differences between EPA and NJDEP that in some cases (including this one) result in inconsistent



implementation of the RCRA program. The challenge will be to agree on what needs to be done (and how NJDEP imposes a CEA is one of them) and how the policies that result are communicated to NJDEP staff that are not part of the RCRA program, so that the NJDEP program will be consistent with the federal program.

>>> ANDY PARK 12/09/97 04:02pm >>>

During the previous communication with Frank Faranca, NJDEP case manager, he said that the proposed CEA for lead and zinc is based on monitored natural attenuation and the source of the contamination is primarily the closed RCRA-regulated land disposal unit, which are currently subject to the NJPDES permit for RCRA post-closure care. The proposed CEA looks fine, except a few issues that still need to be resolved. However, NJDEP is currently considering a modification of the MOA to adopt the CEA when deemed acceptable.

I said to him that the NJPDES permit, equivalent to the RCRA post-closure permit, should be a more appropriate legal mechanism to adopt the CEA than the MOA because the CEA represents a final remedy for groundwater for the RCRA regulated units, which are currently regulated under the permit.

Frank said that he received a message from Tracy Grabiak of the Bureau of Groundwater Pollution Abatement, stating that she believes that MOA would be fine and she is willing to speak with us concerning on this issue. Although I recognize that the State approach would be acceptable if the EPA post-closure rule is issued, I believe that, until it is final, the NJPDES permit should be modified. Please advise me as needed. Thanks.  
Andy Park

**From:** ANDY PARK  
**To:** R2NYC06.R2DEPDIV(TORNICK-BARRY), RTPMAINHUB:RTPMAI...  
**Date:** 12/11/97 11:56am  
**Subject:** Lenox China-CEA -Reply -Reply -Reply

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<TORNICK.BARRY@epamail.epa.gov> 12/10/97 09:05am  
>>>

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The main problems are the programmatic differences between EPA and NJDEP that in some cases (including this one) result in inconsistent implementation of the RCRA program. The challenge will be to agree on what needs to be done (and how NJDEP imposes a CEA is

one of them)  
and how the policies that result are communicated to NJDEP  
staff that  
are not part of the RCRA program, so that the NJDEP  
program will be  
consistent with the federal program.

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groundwater for the RCRA regulated units, which are  
currently regulated  
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believes that MOA  
would be fine and she is willing to speak with us concerning  
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be  
acceptable if the EPA post-closure rule is issued, I believe  
that, until it is  
final, the NJPDES permit should be modified. Please advise  
me as  
needed. Thanks.  
Andy Park

CC:

RTPMAINHUB:RTPMAINHUB.INTERNET:R2NYC03.R2ORCDIV(WE...

**From:** Frank Faranca <FFARANCA@dep.state.nj.us>  
**To:** R2NYC06.R2DEPDIV(PARK-ANDY)  
**Date:** 11/24/97 11:11am  
**Subject:** Lenox Statistical Analysis

**\*\* High Priority \*\***  
**\*\* Reply Requested When Convenient \*\***

Andy,  
Attached please find a DRAFT copy of a Lenox correspondence regarding their 3 year statistical analysis. Please let me know if you have any comments. Thanks  
Frank

**From:** ANDY PARK  
**To:** rtpmainhub.internet:("ffaranca@dep.state.nj.us")  
**Date:** 11/24/97 11:34am  
**Subject:** Lenox Statistical Analysis - Reply

Frank,

This is a reiteration of what has been happening with the site. Again, I have not received the report of concern which NJDEP review has been conducted on. As a matter of fact, I have not received any information about the site for quite a while.

Andy Park

**CC:** btornick,rtpmainhub.internet:("dkanjarp@dep.state....

**From:** ANDY PARK  
**To:** btornick  
**Date:** 11/25/97 11:55am  
**Subject:** Lenox Statistical Analysis -Forwarded

Attached is an NJDEP draft letter that Frank asked me to review before the finalization.

Lenox China has completed the 3-year groundwater monitoring program to collect the adequate amount of groundwater data for the statistical analysis. The statistical analysis of the groundwater results show lead and zinc contamination in groundwater at the two downgradient wells. Based on this, Lenox is proposing a Classification Exception Area (CEA).

The draft NJDEP letter requires Lenox to evaluate a CEA for the TCE contamination and also to check with the local authority to ensure that any developments in the off-site area within the proposed CEA are to be conducted in a way to prevent potential human exposures to the contamination. I concur on the draft. Please let me know of any concerns you may have.

**From:** BARRY TORNICK  
**To:** PARK-ANDY  
**Date:** 11/26/97 11:55am  
**Subject:** Lenox Statistical Analysis -Forwarded -Reply

Two potential concerns I have are what is going to be done about the GW contamination that requires the CEA (is it being addressed by the existing pump and treat system?). Does this GW contamination relate to regulated units or SWMUs and is the contamination related to them being addressed appropriately to either regulated units or SWMUs?

>>> ANDY PARK 11/25/97 11:55am >>>

Attached is an NJDEP draft letter that Frank asked me to review before the finalization.

Lenox China has completed the 3-year groundwater monitoring program to collect the adequate amount of groundwater data for the statistical analysis. The statistical analysis of the groundwater results show lead and zinc contamination in groundwater at the two downgradient wells. Based on this, Lenox is proposing a Classification Exception Area (CEA).

The draft NJDEP letter requires Lenox to evaluate a CEA for the TCE contamination and also to check with the local authority to ensure that any developments in the off-site area within the proposed CEA are to be conducted in a way to prevent potential human exposures to the contamination. I concur on the draft. Please let me know of any concerns you may have.

**From:** ANDY PARK  
**To:** RTPMAINHUB:RTPMAINHUB.INTERNET("FFARANCA@dep.state...  
**Date:** 11/26/97 3:00pm  
**Subject:** Lenox Statistical Analysis -Reply

Frank,

I have reviewed the 10/14/97 CEA report and your letter. I would like to have you respond to the following two concerns.

1. What will Lenox do about the CEA of lead and zinc? Based on the CEA figure included in the document, it appears that the current groundwater pumping and treat system for the TCE groundwater contamination can also address the lead and zinc CEA. It needs to be confirmed.

2. Is the lead and zinc groundwater contamination related to regulated units or SWMUs? It is my understanding that the Glaze and Slip Basins had wastes containing lead and zinc and soils underneath the units were also contaminated with them. It is also my understanding that the Sludge Disposal Area (SWMU 2) is contaminated with elevated levels of lead and zinc. Do we have sufficient groundwater data to answer the question?

Otherwise, I agree with your letter.

Andy Park

>>> Frank Faranca <FFARANCA@dep.state.nj.us> 11/24/97 11:11am >>>

\*\* High Priority \*\*

\*\* Reply Requested When Convenient \*\*

Andy,

Attached please find a DRAFT copy of a Lenox correspondence regarding their 3 year statistical analysis. Please let me know if you have any comments. Thanks

Frank



**From:** Frank Faranca <FFARANCA@dep.state.nj.us>  
**To:** R2NYC06.R2DEPDIV(PARK-ANDY)  
**Date:** 12/1/97 7:39am  
**Subject:** Andy,

**\*\* High Priority \*\***  
**\*\* Reply Requested When Convenient \*\***

Andy,  
Attached please find my responses:

>>> ANDY PARK <PARK.ANDY@epamail.epa.gov> 11/26/97 03:00pm >>>

Frank,  
I have reviewed the 10/14/97 CEA report and your letter. I would like to have you respond to the following two concerns.

1. What will Lenox do about the CEA of lead and zinc? Based on the CEA figure included in the document, it appears that the current groundwater pumping and treat system for the TCE groundwater contamination can also address the lead and zinc CEA. It needs to be confirmed.

ANSWER: THE REQUESTED REMEDY IS NATURAL ATTENUATION BASED UPON THE PREVIOUS REMOVAL ACTIONS (OUT OF THE WATER TABLE) AND/OR CAPPING OF CONTAMINATED MATERIALS WITHIN BOTH THE SWMU'S AND THE LAND DISPOSAL UNITS. THE FOLLOWING NEW PARAGRAPH WILL BE INSERTED INTO THE DRAFT LETTER:

"5. Lenox has implemented remedial actions/engineering controls (such as source removal and capping) to control lead and zinc migration from the source areas. If Lenox is proposing "natural attenuation" as the ground water remedy for lead and zinc, this must be discussed in the text and supporting documentation provided in accordance with the Department's CEA Final Guidance Document and N.J.A.C. 7:26E-6.3(d) of the Technical Requirements for Site Remediation."

2. Is the lead and zinc groundwater contamination related to regulated units or SWMUs? It is my understanding that the Glaze and Slip Basins had wastes containing lead and zinc and soils underneath the units were also contaminated with them. It is also my understanding that the Sludge Disposal Area (SWMU 2) is contaminated with elevated levels of lead and zinc. Do we have sufficient groundwater data to answer the question?

ANSWER: YES, THE LEAD AND ZINC IN THE GROUND WATER IS RELATED TO THE LAND DISPOSAL UNITS AND POSSIBLY SWMU 2. SINCE THEY ARE IN THE SAME GENERAL VICINITY OF EACH OTHER AND THEY HAVE BOTH UNDERGONE REMEDIAL ACTIONS, IT IS BELIEVED THAT NATURAL ATTENUATION WILL SUFFICE AS A GROUND WATER REMEDY. HOWEVER, THIS WILL HAVE TO BE DEMONSTRATED BY LENOX AND IT WILL HAVE TO BE ACCEPTED BY THE PINELANDS COMMISSION AS WELL.

Otherwise, I agree with your letter.  
Andy Park

>>> Frank Faranca <FFARANCA@dep.state.nj.us> 11/24/97 11:11am  
>>>

**\*\* High Priority \*\***  
**\*\* Reply Requested When Convenient \*\***

Andy,  
Attached please find a DRAFT copy of a Lenox correspondence

regarding their 3 year  
statistical analysis. Please let me know if you have any comments.

Thanks

Frank

**Mail Envelope Info:** (34901B56.6C6 : 17 : 27744)

**Subject:** Lenox China-CEA -Reply -Reply -Reply  
**Creation Date:** 12/11/97 11:56am  
**From:** ANDY PARK

**Created By:** R2NYC06.R2DEPDIV:PARK-ANDY

**Recipients**

Post Office R2NYC06.R2DEPDIV  
BASSO-RAY CC (RAY BASSO)  
TORNICK-BARRY (BARRY TORNICK)

**Action**

Delivered

**Date & Time**

12/11/97 11:56am

Post Office RTPMAINHUB

No More Status

"BVENNER@dep.state.nj.us" CC  
"DCLARK@dep.state.nj.us" CC  
"DSWEENEY@dep.state.nj.us" CC  
"EFERNAND@dep.state.nj.us" CC  
"FFARANCA@dep.state.nj.us" CC  
"TGRABIAK@dep.state.nj.us"

Transferred

12/11/97 11:59am

12/11/97 11:59am

Post Office RTPMAINHUB

No More Status

WEISBERG-RICHARD CC

Transferred

12/11/97 11:59am

12/11/97 11:59am

**Domain.Post Office**

R2NYC06.R2DEPDIV  
RTPMAINHUB  
RTPMAINHUB

**Delivered**

12/11/97 11:56am

**Route**

R2NYC06.R2DEPDIV  
RTPMAINHUB:RTPMAIN  
RTPMAINHUB:RTPMAIN

**Files**

Mail  
Mail  
Mail  
Mail  
Mail  
Mail  
MESSAGE

**Size**

3538

**Date & Time**

12/11/97 11:56am

**Options**

**Auto Delete:**

No

**Expiration Date:**

None

**Notify Recipients:**

Yes

**Priority:**

Normal

**Reply Requested:**

No

**Return Notification:**

Send Notification when Deleted

**Concealed Subject:**

No

**Security:**

Normal

**To Be Delivered:**

Immediate

**Status Tracking:**

Delivered & Opened

**From:** BARRY TORNICK  
**To:** RTPMAINHUB:RTPMAINHUB.INTERNET("TGRABIAK@dep.state...  
**Date:** 12/11/97 11:44am  
**Subject:** Lenox China-CEA -Reply -Reply -Reply

It might be most useful to bring the Lenox post-closure permit to the meeting, and maybe one or two others also, and see what they say so we can agree on whether or not they do what they are supposed to.

**CC:** Dhruva, APark

**From:** Tracy Grabiak <TGRABIAK@dep.state.nj.us>  
**To:** R2NYC06.R2DEPDIV(PARK-ANDY,TORNICK-BARRY)  
**Date:** 12/11/97 10:35am  
**Subject:** Lenox China-CEA -Reply -Reply

Liz Fernandez suggested to me what the main misunderstanding may be, which my previous email touched on but may not have stated clearly enough. . This misunderstanding is revealed best in Andy's part of the email where he makes the statement "the CEA represents a final remedy for ground water" This is a common misunderstanding. To put it simply a CEA does not = a remedy. TG

>>> BARRY TORNICK  
<TORNICK.BARRY@epamail.epa.gov> 12/10/97 09:05am  
>>>

The issue seems to be what will make the CEA legally binding from both federal and state perspectives. You are correct that the post-closure permit is more appropriate from the EPA perspective. NJDEP was authorized for the base RCRA program based on imposing post-closure requirements through their NJPDES permits. How they do this (or don't do this) is now an issue concerning whether we are going to re-authorize them.

We have noted inconsistencies in how NJDEP handles closures and post-closures. While I am sure that Tracy is correct in that imposing the CEA through an MOA is acceptable to the NJDEP program, our EPA lawyers would say that not only is an MOA not the instrument through which they were authorized to implement the federal post-closure program, but that MOAs do not even legally impose anything, because they are voluntary documents that facilities can stop implementing if they want.

The main problems are the programmatic differences between EPA and NJDEP that in some cases (including this one) result in inconsistent implementation of the RCRA program. The challenge will be to agree on what needs to be done (and how NJDEP imposes a CEA is one of them) and how the policies that result are communicated to NJDEP staff that are not part of the RCRA program, so that the NJDEP program will be consistent with the federal program.

>>> ANDY PARK 12/09/97 04:02pm >>>

During the previous communication with Frank Faranca, NJDEP case manager, he said that the proposed CEA for lead and zinc is based on monitored natural attenuation and the source of the contamination is primarily the closed RCRA-regulated land disposal unit, which are currently subject to the NJPDES permit for RCRA post-closure care. The proposed CEA looks fine, except a few issues that still need to be resolved. However, NJDEP is currently considering a modification of the MOA to adopt the CEA when deemed acceptable.

I said to him that the NJPDES permit, equivalent to the RCRA post-closure permit, should be a more appropriate legal mechanism to adopt the CEA than the MOA because the CEA represents a final remedy for groundwater for the RCRA regulated units, which are currently regulated under the permit.

Frank said that he received a message from Tracy Grabiak of the Bureau of Groundwater Pollution Abatement, stating that she believes that MOA would be fine and she is willing to speak with us concerning on this issue. Although I recognize that the State approach would be acceptable if the EPA post-closure rule is issued, I believe that, until it is final, the NJPDES permit should be modified. Please advise me as needed. Thanks.  
Andy Park

CC:

R2NYC06.R2DEPDIV(BASSO-RAY),R2NYC03.R2ORCDIV(WEISB...

**Mail Envelope Info:** (34900946.ED2 : 10 : 7890)

**Subject:** Lenox China-CEA -Reply -Reply  
**Creation Date:** 12/11/97 10:35am  
**From:** Tracy Grabiak <TGRABIAK@dep.state.nj.us>

**Created By:** RTPMAINHUB:"TGRABIAK@dep.state.nj.us"

**Recipients**

Post Office R2NYC06.R2DEPDIV  
BASSO-RAY CC (RAY BASSO)  
PARK-ANDY (ANDY PARK)  
TORNICK-BARRY (BARRY TORNICK)

Post Office R2NYC03.R2ORCDIV  
WEISBERG-RICHARD CC (RICHARD WEISBERG)

Post Office RTPMAINHUB.INTERNET  
"FFARANCA@dep.state.nj.us" CC  
"EFERNAND@dep.state.nj.us" CC  
"DSWEENEY@dep.state.nj.us" CC  
"DCLARK@dep.state.nj.us" CC  
"BVENNER@dep.state.nj.us" CC

**Domain.Post Office**

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**Route**

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Header

**Size**

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**Date & Time**

12/11/97 10:35am

**Options**

**Expiration Date:** None  
**Priority:** Normal  
**Reply Requested:** No  
**Return Notification::** None

**Concealed Subject:** No  
**Security:** Normal

**From:** BARRY TORNICK  
**To:** R2NYC06.R2DEPDIV(PARK-ANDY), RTPMAINHUB:RTPMAINHUB...  
**Date:** 12/11/97 9:39am  
**Subject:** Lenox China-CEA -Reply -Reply -Reply

I don't necessarily disagree with you (Tracy). A big part of the problem here is "translating" what NJDEP does to determine whether it is consistent with what EPA needs. The post-closure permit should reflect what is being done at the facility to control GW and ultimately protect human health and the environment. If you want to separately impose, through the post-closure permit, what the remedial decision is and maybe just cite the legally binding CEA (assuming everyone agrees that it is legally binding) that may be alright. I am more concerned that the post-closure permit does what it needs to, rather than whether CEAs are specifically included in the permit. We can discuss further how remedial decisions are documented and imposed by NJDEP and whether that is adequate for consistency with the federal program. I expect our respective lawyers will also have opinions.

>>> Tracy Grabiak <TGRABIAK@dep.state.nj.us> 12/10/97 06:07pm >>>

Hi everyone,

This CEA animal has caused sooo much confusion. First thing to look at is that the CEA is something required by the NJ GWQS not the RCRA program. It is NOT the equivalent of an alternate concentration limit determination. What would be the regulatory basis for considering it a requirement that would have to be included as part of a RCRA post closure permit? I know of no such basis. I don't see why we should think there is any legal basis for establishing a CEA as part of a federal program.

You say the issue is what would make the CEA "legally binding from both a federal and state perspective." Once a CEA is established, per the GWQS by the NJDEP it is legally established. Lenox has no say over whether it is established or not and the mechanism we use to establish it has no affect on it being "legally binding" as long as we go by the GWQS. Doing it through the MOA mechanism is totally consistant w/ the NJ GWQS and would result in a legally binding CEA..

Please keep in mind a CEA is something NJDEP does either at the same time (or "soon" after) a gw remedial decision is made for the purpose of notifying users or potential users of that gw that gw in that area/aquifer exceeds the applicable criteria. Its done at the same time as a remedial decision but does nothing to modify the remedial decision. Once a CEA has been established, regardless of how it is established, it does not go away until we determine that gw meets the criteria again. Any monitoring that would need to be done for nat. rem. of PB and Zinc should be done as part of the post closure gw monitoring under the permit. This monitoring is really not something that is part of the CEA. If Lenox decides not to do something the MOA included it will have no affect on the existance of the CEA regardless of whether the MOA is used as the mechanism for establishing the CEA. Because of this I think DEP should use the MOA because it would be less costly and less time consuming than doing a permit modification.

Hope this clarifies an understandably confusing situation.  
TG

>>> BARRY TORNICK  
<TORNICK.BARRY@epamail.epa.gov> 12/10/97 09:05am



>>>

The issue seems to be what will make the CEA legally binding from both federal and state perspectives. You are correct that the post-closure permit is more appropriate from the EPA perspective. NJDEP was authorized for the base RCRA program based on imposing post-closure requirements through their NJPDES permits. How they do this (or don't do this) is now an issue concerning whether we are going to re-authorize them.

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The main problems are the programmatic differences between EPA and NJDEP that in some cases (including this one) result in inconsistent implementation of the RCRA program. The challenge will be to agree on what needs to be done (and how NJDEP imposes a CEA is one of them) and how the policies that result are communicated to NJDEP staff that are not part of the RCRA program, so that the NJDEP program will be consistent with the federal program.

>>> ANDY PARK 12/09/97 04:02pm >>>

During the previous communication with Frank Faranca, NJDEP case manager, he said that the proposed CEA for lead and zinc is based on monitored natural attenuation and the source of the contamination is primarily the closed RCRA-regulated land disposal unit, which are currently subject to the NJPDES permit for RCRA post-closure care. The proposed CEA looks fine, except a few issues that still need to be resolved. However, NJDEP is currently considering a modification of the MOA to adopt the CEA when deemed acceptable.

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Andy Park

CC: RTPMAINHUB:RTPMAINHUB.INTERNET:R2NYC03.R2ORCDIV(WE...

**Mail Envelope Info:** (348FFB16.996 : 23 : 39276)

**Subject:** Lenox China-CEA -Reply -Reply -Reply  
**Creation Date:** 12/11/97 9:39am  
**From:** BARRY TORNICK

**Created By:** R2NYC06.R2DEPDIV:TORNICK-BARRY

**Recipients**

Post Office R2NYC03.R2ORCDIV  
SAWYER-WILLIAM CC (WILLIAM SAWYER)

Post Office R2NYC06.R2DEPDIV  
BASSO-RAY CC (RAY BASSO)  
PARK-ANDY (ANDY PARK)

Post Office RTPMAINHUB  
"BVENNER@dep.state.nj.us" CC  
"DCLARK@dep.state.nj.us" CC  
"DSWEENEY@dep.state.nj.us" CC  
"EFERNAND@dep.state.nj.us" CC  
"FFARANCA@dep.state.nj.us" CC  
"TGRABIAK@dep.state.nj.us"

Post Office RTPMAINHUB  
WEISBERG-RICHARD CC

**Domain.Post Office**

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**Route**

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**Date & Time**  
12/11/97 09:39am

**Options**

**Expiration Date:** None  
**Priority:** Normal  
**Reply Requested:** No  
**Return Notification::** None

**Concealed Subject:** No  
**Security:** Normal

**From:** Tracy Grabiak <TGRABIAK@dep.state.nj.us>  
**To:** R2NYC06.R2DEPDIV(PARK-ANDY,TORNICK-BARRY)  
**Date:** 12/10/97 6:07pm  
**Subject:** Lenox China-CEA -Reply -Reply

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TG

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<TORNICK.BARRY@epamail.epa.gov> 12/10/97 09:05am  
>>>

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>>> ANDY PARK 12/09/97 04:02pm >>>

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Andy Park

CC:

R2NYC06.R2DEPDIV(BASSO-RAY),R2NYC03.R2ORCDIV(WEISB...

**Mail Envelope Info:** (348F215C.AC0 : 22 : 2752)

**Subject:** Lenox China-CEA -Reply -Reply  
**Creation Date:** 12/10/97 6:07pm  
**From:** Tracy Grabiak <TGRABIAK@dep.state.nj.us>

**Created By:** RTPMAINHUB:"TGRABIAK@dep.state.nj.us"

**Recipients**

Post Office R2NYC06.R2DEPDIV  
BASSO-RAY CC (RAY BASSO)  
PARK-ANDY (ANDY PARK)  
TORNICK-BARRY (BARRY TORNICK)

Post Office R2NYC03.R2ORCDIV  
WEISBERG-RICHARD CC (RICHARD WEISBERG)

Post Office RTPMAINHUB.INTERNET  
"FFARANCA@dep.state.nj.us" CC  
"EFERNAND@dep.state.nj.us" CC  
"DSWEENEY@dep.state.nj.us" CC  
"DCLARK@dep.state.nj.us" CC  
"BVENNER@dep.state.nj.us" CC

**Domain.Post Office**

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**Route**

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**Date & Time**

12/10/97 06:07pm

**Options**

**Expiration Date:** None  
**Priority:** Normal  
**Reply Requested:** No  
**Return Notification::** None

**Concealed Subject:** No  
**Security:** Normal

**From:** BARRY TORNICK  
**To:** PARK-ANDY  
**Date:** 12/10/97 9:05am  
**Subject:** Lenox China-CEA -Reply

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Andy Park

**CC:** rtpmainhub.Internet:"TGrabiak@DEP.state.NJ.US", rt...

12/10/97 ROC w/ Frank Faranca

He said that he will send a letter out to the company without saying whether CEA is to be bound to MOA or NJPDES permit. We hope it will be ~~resolved~~ resolved soon.

Andy Park



**Mail Envelope Info:** (348EA1A4.996 : 23 : 39276)

**Subject:** Lenox China-CEA -Reply  
**Creation Date:** 12/10/97 9:05am  
**From:** BARRY.TORNICK

**Created By:** R2NYC06.R2DEPDIV:TORNICK-BARRY

**Recipients**

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Post Office R2NYC06.R2DEPDIV  
BASSO-RAY CC (RAY BASSO)  
PARK-ANDY (ANDY PARK)

Post Office rtpmainhub.internet  
"BVenner@DEP.state.NJ.US" CC  
"FFaranca@DEP.state.NJ.US" CC  
"TGrabiak@DEP.state.NJ.US" CC

**Domain.Post Office**

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**Size**

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**Date & Time**

12/10/97 09:05am

**Options**

**Expiration Date:** None  
**Priority:** Normal  
**Reply Requested:** No  
**Return Notification::** None

**Concealed Subject:** No  
**Security:** Normal

**From:** ANDY PARK  
**To:** btornick  
**Date:** 12/9/97 4:02pm  
**Subject:** Lenox China-CEA

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Andy Park

12/1/97

11:25 am

I called Frank and left a message, asking the question as to whether the State NJPDES post-closure permit needs to be modified.

Andy Park

---

12/1/97

Conference Call w/ Frank Faranca and Daryl Clark

- They will revise the letter to address the concerns and send me another letter to me.

Andy Park

From: Frank Faranca <FFARANCA@dep.state.nj.us>  
To: R2NYC06.R2DEPDIV(PARK-ANDY)  
Date: 12/1/97 7:39am  
Subject: Andy,

\*\* High Priority \*\*

\*\* Reply Requested When Convenient \*\*

Andy,  
Attached please find my responses:

>>> ANDY PARK <PARK.ANDY@epamail.epa.gov> 11/26/97 03:00pm >>>  
Frank,

I have reviewed the 10/14/97 CEA report and your letter. I would like to have you respond ~~to~~ the following two concerns.

1. What will Lenox do about the CEA of lead and zinc? Based on the CEA figure included in the document, it appears that the current groundwater pumping and treat system for the TCE groundwater contamination can also address the lead and zinc CEA. It needs to be confirmed.

ANSWER: THE REQUESTED REMEDY IS NATURAL ATTENUATION BASED UPON THE PREVIOUS REMOVAL ACTIONS (OUT OF THE WATER TABLE) AND/OR CAPPING OF CONTAMINATED MATERIALS WITHIN BOTH THE SWMU'S AND THE LAND DISPOSAL UNITS. THE FOLLOWING NEW PARAGRAPH WILL BE INSERTED INTO THE DRAFT LETTER:

"5. Lenox has implemented remedial actions/engineering controls (such as source removal and capping) to control lead and zinc migration from the source areas. If Lenox is proposing "natural attenuation" as the ground water remedy for lead and zinc, this must be discussed in the text and supporting documentation provided in accordance with the Department's CEA Final Guidance Document and N.J.A.C. 7:26E-6.3(d) of the Technical Requirements for Site Remediation."

2. Is the lead and zinc groundwater contamination related to regulated units or SWMUs? It is my understanding that the Glaze and Slip Basins had wastes containing lead and zinc and soils underneath the units were also contaminated with them. It is also my understanding that the Sludge Disposal Area (SWMU 2) is contaminated with elevated levels of lead and zinc. Do we have sufficient groundwater data to answer

the  
question?

ANSWER: YES, THE LEAD AND ZINC IN THE GROUND WATER IS  
RELATED TO THE LAND DISPOSAL UNITS AND POSSIBLY SWMU 2.  
SINCE THEY ARE IN THE SAME GENERAL VICINITY OF EACH OTHER  
AND THEY HAVE BOTH UNDERGONE REMEDIAL ACTIONS, IT IS  
BELIEVED THAT NATURAL ATTENUATION WILL SUFFICE AS A GROUND  
WATER REMEDY. HOWEVER, THIS WILL HAVE TO BE DEMONSTRATED  
BY LENOX AND IT WILL HAVE TO BE ACCEPTED BY THE PINELANDS  
COMMISSION AS WELL.

Otherwise, I agree with your letter.  
Andy Park

>>> Frank Faranca <FFARANCA@dep.state.nj.us> 11/24/97 11:11am  
>>>

\*\* High Priority \*\*

\*\* Reply Requested When Convenient \*\*

Andy,  
Attached please find a DRAFT copy of a Lenox correspondence  
regarding their 3 year  
statistical analysis. Please let me know if you have any  
comments.  
Thanks  
Frank

Do they  
need to  
modify  
the NJPDES  
post-closure  
permit to  
incorporate  
CEA?

From: ANDY PARK  
To: RTPMAINHUB:RTPMAINHUB.INTERNET("FFARANCA@dep.state...  
Date: 11/26/97 3:00pm  
Subject: Lenox Statistical Analysis -Reply

Frank,  
I have reviewed the 10/14/97 CEA report and your letter. I would like to have you respond to the following two concerns.

1. What will Lenox do about the CEA of lead and zinc? Based on the CEA figure included in the document, it appears that the current groundwater pumping and treat system for the TCE groundwater contamination can also address the lead and zinc CEA. It needs to be confirmed.

2. Is the lead and zinc groundwater contamination related to regulated units or SWMUs? It is my understanding that the Glaze and Slip Basins had wastes containing lead and zinc and soils underneath the units were also contaminated with them. It is also my understanding that the Sludge Disposal Area (SWMU 2) is contaminated with elevated levels of lead and zinc. Do we have sufficient groundwater data to answer the question?

Otherwise, I agree with your letter.  
Andy Park

>>> Frank Faranca <FFARANCA@dep.state.nj.us> 11/24/97 11:11am >>>  
\*\* High Priority \*\*  
\*\* Reply Requested When Convenient \*\*

Andy,  
Attached please find a DRAFT copy of a Lenox correspondence regarding their 3 year statistical analysis. Please let me know if you have any comments. Thanks  
Frank

From: BARRY TORNICK  
To: PARK-ANDY  
Date: 11/26/97 11:55am  
Subject: Lenox Statistical Analysis -Forwarded -Reply

Two potential concerns I have are what is going to be done about the GW contamination that requires the CEA (is it being addressed by the existing pump and treat system?). Does this GW contamination relate to regulated units or SWMUs and is the contamination related to them being addressed appropriately to either regulated units are SWMUs?

>>> ANDY PARK 11/25/97 11:55am >>>

Attached is an NJDEP draft letter that Frank asked me to review before the finalization.

Lenox China has completed the 3-year groundwater monitoring program to collect the adequate amount of groundwater data for the statistical analysis. The statistical analysis of the groundwater results show lead and zinc contamination in groundwater at the two downgradient wells. Based on this, Lenox is proposing a Classification Exception Area (CEA).

The draft NJDEP letter requires Lenox to evaluate a CEA for the TCE contamination and also to check with the local authority to ensure that any developments in the off-site area within the proposed CEA are to be conducted in a way to prevent potential human exposures to the contamination. I concur on the draft. Please let me know of any concerns you may have.

From: ANDY PARK  
To: btornick  
Date: 11/25/97 11:55am  
Subject: Lenox Statistical Analysis -Forwarded

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# State of New Jersey

Christine Todd Whitman  
Governor

Department of Environmental Protection

Robert C. Shinn, Jr.  
Commissioner

CERTIFIED MAIL  
RETURN RECEIPT REQUESTED  
NO. P055 806 536

JUL 31 1998

Mr. Louis A. Fantin, VP  
Lenox Incorporated  
100 Lenox Drive  
Lawrenceville, NJ 08648

Dear Mr. Fantin:

Re: Lenox China Facility  
Statistical Monitoring Program and Classification Exception Area (CEA)  
Galloway Township, Atlantic County

The New Jersey Department of Environmental Protection (Department), the U.S. Environmental Protection Agency (EPA) and the New Jersey Pinelands received the above referenced report dated June 30, 1998 prepared by Eder Associates on behalf of Lenox Incorporated (Lenox). The regulatory agencies have determined that the report is conditionally approved pending the incorporation of the following minor comments:

1. Lenox was informed in written correspondence from the Department dated December 16, 1997 that they must refer to N.J.A.C. 7:26E-6.3(d) i.i. and ii. of the Technical Requirements for Site Remediation when documenting their proposal for natural attenuation of the lead and zinc contamination. Lenox must evaluate each site condition listed. For those conditions that are not applicable, Lenox should request a variance in accordance with N.J.A.C. 7:26E-1.6(d). Based on the Lenox's proposed method for natural attenuation (ion exchange/specific adsorption with iron and manganese oxides), site-specific information on iron and manganese concentrations, pH levels, soil clay content, soil organic matter and any other applicable information were requested. Lenox's response is acceptable with the following comment. Table 10 (site iron and manganese ground water concentrations) was not included in the report as stated on page 8. This table must be submitted.
2. Lenox submitted a CEA compliance-sampling plan as an addendum to their Supplemental Ground Water Sampling and Analysis Plan. The plan, which proposes to use MW-75 and MW-79A as sentinel wells, is conditionally acceptable. To ensure adequate areal coverage given the width of the contaminant plumes, all five Whitehorse Pike monitoring wells (MW-75 through MW-79A) must be included. Since these wells are currently being sampled on a quarterly basis under the supplemental ground water sampling plan, they can be incorporated into the CEA compliance program as sentinel wells.

The Department informed Lenox that site-specific GWQC for lead and zinc can be determined by calculating the arithmetic mean for each parameter based on the ground water concentrations detected in monitoring well MW-1 during the 3-year study. Lenox calculated the arithmetic mean for zinc as 36.7 ppb. Lenox proposes this concentration as the site-specific GWQC for zinc. Lenox is proposing the lead practical quantitation level (PQL) of 10 ppb as the site GWQC for lead. These criteria are acceptable.

Written and mapped descriptions of the proposed CEA boundary for lead, zinc and TCE are included in the report. The lead/zinc CEA extends to Atlantic Avenue and the CEA for the TCE plumes extends to the Whitehorse Pike. These boundaries are acceptable to the Department.

Based on information provided by Lenox, the CEA is considered a ground water use area since connection to the municipally supplied water main is not mandatory. Notification of property owners within the CEA boundary is required. Lenox acknowledges the Department's decision and states that it will notify the property owners. In accordance with Note #3 in Part IV (page 6 of 6) of Lenox China's NJPDES-DGW permit, the site-specific ground water criteria will be incorporated into the permit as a major modification. The modification will be performed in accordance with the procedures in N.J.A.C. 7:14A-15.6.

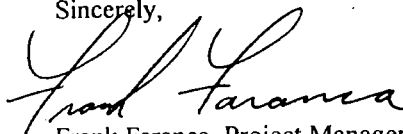
The CEA designation, when approved by the Department, will also be incorporated into Lenox China's NJPDES-DGW permit. A description of the CEA will be included in the Fact Sheet and Public Notice. Lenox will be responsible for documenting that they have notified the local health department, governing bodies and impacted property owners pursuant to N.J.A.C. 7:26E-6.2(a)17.v.(1) and (2). Lenox will also be responsible for notifying impacted property owners by the start of the 30-day public comment period.

Since the CEA will be established under the NJPDES-DGW permit, the CEA will remain in effect for 5 years. If the standards are not met at the end of this period, the CEA longevity will be extended through the permit renewal process for another 5 years. This process will continue until the ground water standards are met within the CEA.

Ground water monitoring requirements for the CEA will not be included in the NJPDES-DGW permit. They will remain as part of the MOA.

Should you have any questions, please contact me at (609) 984-4071.

Sincerely,



Frank Faranca, Project Manager  
Bureau of Federal Case Management

C: Andrew Park, USEPA, Region II  
Daryl Clark, NJDEP/DPFSR/BGWPA  
Todd DeJesus, Pinelands Commission